

Linear Measurements

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Revision Date of Lesson Plan:

Overall Goal for the Lesson:

Student will be able to accurately be able to use a ruler and tape measure to measure linear distances using inches and centimeters.

Description of classroom, grade level, and students:

The activity is designed for 1st grade students. It was designed for a classroom of 20 students but the lesson would work with more or less students. This lesson is a lesson in a larger measurement unit that includes time telling and money. Students will learn many aspects of measuring and learn how to correctly use a measurement tool like a ruler.

Student Objectives for the lesson. (Given a condition, the students will, to what level).

Given various measurable objects, the student will be able to measure each object with a ruler correctly to the nearest inch or centimeter with 80% accuracy.

Length of Lesson: (minutes, number of class periods, or days or weeks needed).

This lesson should only take one day of instruction. The measurement unit itself should last about a week.

Schedule of Activities: (Break down your activity into a timeline of events. Focus on what students will be doing and what teachers will be doing during each part of the activity.)

1. For an introduction to this lesson, I will ask the students if they have ever measured something using a ruler or other measurement tool to facilitate an opening discussion.
2. After a class discussion I will show different types of rulers on the document camera and ask the students to describe their features and characteristics of each of the tools. I will then pass the different measuring tools for them to look at and examine and tell them that we will be focusing on just using the ruler today.
3. I will then show the students the proper way to use a ruler or measuring tool using the document camera and/or the smartboard. I have will students volunteers help demonstrate the proper techniques to get some class involvement using the smartboard and the document camera.
4. I will then pass out to the student their own rulers that they can play and get familiar with. They will be allowed to go around the classroom to measure various objects and practice using them.
5. I will walk around the classroom and answer any questions they might have and do some extra practice with students that may need the extra help.

6. After playing around with the rulers I will pass out an inchworm paper ruler that they will cut out and color that they will use for the podcast.
7. After the students have cut out and colored their inchworm rulers, we will listen to the podcast I made. I will pass out a worksheet that they will do during the podcast. The podcast will be a good review of everything that the students have learned in this lesson. This is a good opportunity to allow students to rest a bit after being more active.
8. During the podcast during the reading of “Inch by Inch” by Leo Lioni, the students will be directed to measure the animals on the worksheet while the inchworm does in the book. The podcast will inform them of what to do. I will pick this worksheet up for assessment.
9. After the podcast is finished we will discuss any concern or questions and I will close the lesson.

PASS and Common Core Standards Addressed (Copy and Paste from: <http://sde.state.ok.us/Curriculum/PASS/default.html>)

Standard 4: Measurement - The student will develop and use measurement skills in a variety of situations.

1. Linear Measurement: Measure objects with one-inch tiles and with a standard ruler to the nearest inch.
2. Time a. Tell time on digital and analog clocks on the hour and half-hour. b. Develop the concepts of days, weeks, and months using a calendar.
3. Money: Identify and name the value of pennies, dimes, nickels, and quarters.

PASS Instructional Technology Standards (Copy and Paste from: <http://sde.state.ok.us/Curriculum/PASS/default.html>)

Standard 3: The student will demonstrate knowledge of technology productivity tool.

1. Use general-purpose productivity tools and peripherals to support personal productivity, remediate skill deficits, and facilitate learning throughout the curriculum.
2. Use technology tools (e.g., multimedia authoring, presentation, Web tools, digital cameras, scanners) for individual and collaborative writing, communication, and publishing activities to create knowledge products for audiences inside and outside the classroom.

Standard 6: The student will demonstrate knowledge of technology problem-solving and decision-making tools.

1. Use technology resources (e.g., calculators, data collection probes, videos, educational software) for problem solving, self-directed learning, and extended learning activities.
2. Determine which technology is useful and select the appropriate tool(s) and technology resources to address a variety of tasks and problems.
3. Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources.

Assessments: How will these activities be assessed? (Go back to your objectives, what will the students do? Make sure that each objective is paired to an assessment measure that allows students to show it).

Given eight objects to measure, the student will be able to measure them accurately with a ruler to the nearest inch with 80% accuracy.

Accommodations: How might the lesson need to be adapted for students with special needs?

Specific rulers with larger font, wider width, and raised numbers and dashes can be given to students with disabilities. This will help them see the numbers and ridges more defined when measuring. Students can also be given their own set of headphones when we listen to the podcast to minimize distractions. Students that need it may also be given the book “Inch by Inch” with larger font to follow along with the podcast. If many student are struggling the worksheet can be changed from an individual activity to working in partners and small groups.

Materials Needed: Go through each activity and identify what items (both technology and not) are needed to complete this lesson. Include a breakdown according to individual student or student groups. Include materials that need to be created as well.

- Class set of rulers
- Different forms of measuring tools (ruler, yard stick, tape measure, inch tiles, etc.)
- Document camera
- Smartboard
- Podcast
- Speakers to listen to podcast
- Scissors
- Inchworm ruler
- Inchworm worksheet
- Markers, crayons, colored pencils
- Something you might want to have handy for a student who needs accommodations is a hard copy of the book “Inch By Inch” by Leo Lionni